

Aero Design Ltd.**Work Order Control Sheet****Work Order#:** 2015-16 **Date Opened:** 18 Feb 2015 **Title:** Assembly**Aircraft OEM:** Eurocopter **Aircraft Model:** AS350/355 **Product Type:** Cargo Basket **Product Model:** Long **Quantity:** 1**Work Order Contents**

Work Order/Build Sheets (Procedures Provided)
Additional Work Sheets (Standard Practice)
Drawings (See List Below)
Parts Distribution Sheet
Sub Component Tags
Completed Certification (Original)
Time Sheet (R&D)
Notes

Initial or N/A

JR
N/A
JR
JR
N/A
JR
N/A
N/A

Build Sheet Contents

Tasks Initialled
Dual Inspections Initialled

Initial or N/A

JR
JR

Drawing List

Drawing #	Rev #	Description	Initial or N/A
78410	2	Basket Assembly	JR
78427	2	Placard	JR

Component Completion

Quantity Complete on This Work Order
Quantity Incomplete on This Work Order
Further Processing Required Before Release
Release to Stock as Components

As Instructed

1
N/A
N/A
N/A

Certification

Form One Completed
Serviceable (Green) Tag Completed
In Process (Yellow) Tag Completed
Unserviceable (Red) Tag Completed
Parts Placed in Stores for Distribution

JR
N/A
N/A
N/A
N/A

Additional Documentation

Documentation of a minor change
Non-Conformance Report Required
Service Difficulty Report Required

Initial or N/A

N/A
N/A
N/A

Billing

Local (Aero Design)
Research and Development
Third Party

JR
N/A
N/A

Traveller

Install walkway on lid
Install lid on basket body
Re-tap mounting lug holes and install mount lugs
Install handle brackets
Install handle
Install lid prop
Install data plate

Initial or N/A

MR
MR
MR
MR
MR
MR
MR

Work performed by:

Print: J Rekve for M Rekve

ICC / Dual Inspection performed by:

Print: Jason Rekve

Work Order closed by:

Print: Jason Rekve

Approved Manufacturing Facility 73-04

Sign:

Sign:

Sign:

Form 20.D.03

SCA: AD01SCA: AD01SCA: AD01Date: 25-Feb-15Date: 25-Feb-15Date: 01-Mar-15

Rev. Original 23 Sep 2014

1. Approving Civil Aviation Authority/Country Transport Canada		2. AUTHORIZED RELEASE CERTIFICATE FORM ONE			3. Form Tracking No.
4. Organization Name and Address AERO Design Ltd. – 9888A Malaspina Road, Powell River, BC, V8A 0G3					5. Work Order/Contract/Invoice WO2015-16
6. Item	7. Description	8. Part Number	9. Qty.	10. Serial/Batch No.	11. Status/Work
	Long Cargo Basket	78410-01	1	78401-54	New
12. Remarks Modified with walkway on lid IAW DCL704					
13a. Certifies that the items identified above were manufactured in conformity to: <input checked="" type="checkbox"/> Approved design data and are in condition for safe operation. <input type="checkbox"/> Non approved design data specified in block 12.			14a. <input type="checkbox"/> CAR 571.10 Maintenance Release <input type="checkbox"/> Other regulation specified in block 12 Certifies that unless otherwise specified in block 12, the work identified in block 11 and described in block 12, has been performed in compliance with the Canadian Aviation Regulations.		
13b. Signature <i>Jeff Clarke AD02</i>		13c. Approved Organization Number AMF 73-04		14b. Signature	
13d. Name Jeff Clarke - AD02		13e. Date (dd/mmm/yyyy) 25 Feb 2015		14c. Approved Organization Number	
				14d. Name	
				14e. Date (dd/mmm/yyyy)	
Installer Responsibilities This certificate does not constitute authority to install. Installers working in accordance with the national regulations of a country other than that specified in block 1 must ensure that their regulations recognize certifications from the country specified. Statements in blocks 13a or 14a do not constitute installation certification. In all cases, the technical record for the aircraft must contain an installation certification issued in accordance with the applicable national regulations before the aircraft may be flown.					

SMS

CARGO BASKET ASSEMBLY - COMMON

2015-16
AS350 LONG

General

These instructions apply to all cargo basket assemblies. Refer to the following drawings, at the current revision, for dimensions and details:

Bell 206L/407 – Right side only

69810, Revision 3 – Standard Low Mounted Basket
94510, Revision 0 – Extra-Wide Low Mounted Basket
94610, Revision 0 – Extra-Wide Low Mounted Ski Basket
76610, Revision 0 – High Mounted Ski Basket

Eurocopter AS350/AS355 – left or right

77610, Revision 1 – Short Basket
76410, Revision 3 – Medium Basket (left or right)
→ 78410, Revision 2 – Long Basket
94010, Revision 0 – Extra Large (ski) Basket

Robinson R44 – left or right

90610, Revision 0 – Standard Basket (left or right)

Bell 206B – right side only

80210, Revision 0 – Short Basket
80310, Revision 0 – Medium Basket
81110, Revision 0 – Long Basket

Bell 429 – right or left

95911, Revision 0 – Standard Basket

Bell Medium – left or right

75111, Revision 0 – Standard Basket
95511, Revision 0 – Extra Large (ski) Basket

MD600

82811, Revision 0 – Standard Basket

Options

70405, Revision 3? – Lid Walkway

CARGO BASKET ASSEMBLY - COMMON

Complete
(initial or SCA #)

Work Order: 2015-16

Date Open: 18 FEB 2015

ADD

1. Lid Assembly

- a. Install lid bumpers on bottom.
 - i. Fill bumper holes with RTV silicone sealant.
 - ii. Insert 49205-14 lid bumper, 3 or 4 places per lid.
- b. Install placard on bracket on top of lid.
 - i. Locate placard on bracket.
 - ii. Drill #30 through placard and bracket, using holes in placard.
 - iii. Remove placard and de-burr holes in placard and on bracket.
 - iv. Locate placard on bracket, and cleco in place.
 - v. Rivet placard with four CR3213-4-02 CherryMax rivets.
- c. Option: Install walkway on top of lid (lid must be fitted with walkway provisions)
 - i. Note: avoid touching surface of tread plate with bare hands to prevent smudges or marks on the top surface.
 - ii. Pull tread plate from stock. Shear tread plate to length.
 - iii. De-burr edges of tread plate with scotch-brite disc on die-grinder.
 - iv. Locate tread plate on lid. Hold tread plate in place with bags of lead shot.
 - v. Mark and drill #30 holes:
 1. 0.25" from edge of tread plate, centre on cross members (0.38")
 2. 0.25" from edge of tread plate, middle of each walkway stringer
 - vi. De-burr and counter-bore (if required to provide clearance of rivet head on checker pattern) all holes in tread plate using 1/4" piloted counter bore on both sides.
 - vii. De-burr holes in lid tubes.
 - viii. Apply bead of RTV silicone sealant along all tubes under tread plate.
 - ix. Set tread plate in place, secure with clecos if necessary.
 - x. Rivet placard with CR3213-4-02 CherryMax rivets
- d. Record PO/WO of all parts (including lid) used in steps above on attached material tracking list.

2. Body Assembly

ADD

- a. Install attachment fittings
 - i. Carefully remove excess powder coat from around attachment lug threads using a countersink.
 - ii. Run 3/8-24 tap into attachment lugs to clear threads.
 - iii. Apply anti-seize compound to attachment fittings 96710-01 (alternate: Ancra 40088-14)
 - iv. Install attachment fittings with two NAS1149F0363P washers in four lugs in basket.
 1. 90610 (Robinson R44) basket only:
 - a. Install 1 fitting 906?? in lower forward attachment lug only.
 - b. Install 3 96710-01 fittings in remaining locations.
 - v. Torque to ??

- b. 946 Basket Only: Install Cutout Brace – *must be completed after hinge installation*
 - i. Locate 94621-01 Brace over aft cross tube cutout
 - ii. Install two AN4-6A bolts and two AN4-30A bolts with NAS1149F0463P washers.
 - iii. Torque AN4 bolts to ??
- c. Record PO/WO of all parts (including basket) used in steps above on attached material tracking list.

3. Hinge Installation

AD06

- a. Prepare hinge.
 - i. Cut hinge to length:
 - 1. 776, 906 – 54"
 - 2. 751, 803 – 70"
 - 3. 698, 764, 945 – 72"
 - 4. 784 – 90"
 - 5. 940, 946, 959 – 95"
 - ii. Drill #30 pilot holes using hinge jig. For long hinges, flip at specified location on jig.
- b. Install hinge on basket
 - i. Locate hinge on basket (standard baskets)
 - 1. centre fore/aft
 - 2. 0.15" – 0.18" up from bottom edge
 - ii. Locate hinge on basket (extra wide baskets)
 - 1. centre fore/aft
 - 2. set hinge at 90 degrees (as if lid would be installed) using a small square, locate vertical side at 22.5" from outboard edge.
 - iii. Drill #30 through holes in hinge into basket rim. Cleco in place with 1/8 (copper) clecos.
 - iv. Drill holes up to #21 through hinge and rim. Replace 1/8 clecos with 5/32 (black) clecos.
 - v. Remove hinge and de-burr holes in hinge and basket rim.
 - vi. Cleco hinge to basket with 5/32 clecos.
 - vii. Install hinge with CherryMax rivets
 - 1. CR3523-5-02 monel rivets – last 2 rivets in each end
 - 2. CR3213-5-02 aluminum rivets – all other locations
- c. Install lid on basket
 - i. Locate lid on hinge (all baskets)
 - 1. center fore/aft
 - 2. 0.15" – 0.18" down from top edge
 - ii. Drill #30 through holes in hinge into lid rim. Cleco in place with 1/8 clecos.
 - iii. Drill holes up to #21 through hinge and rim. Replace 1/8 clecos with 5/32 clecos.
 - iv. Remove hinge and de-burr holes in hinge and lid rim.
 - v. Cleco lid to hinge with 5/32 clecos.
 - vi. Install hinge with CherryMax rivets
 - 1. CR3523-5-02 monel rivets – last 2 rivets in each end
 - 2. CR3213-5-02 aluminum rivets – all other locations

d. Record PO of hinge and rivets on attached material tracking list.

4. Install Handle

AD06

a. Install handle brackets.

- i. Set 84267-01 handle bracket on provisions in hoops, 2 places.
- ii. Install AN3-11A bolt, NAS1149F0363P washer (2), MS21044N3 nut. Two places per bracket, two brackets per basket.
- iii. Torque AN3 bolts to ??.

b. Install handle

- i. Trim 36278-01R and 36278-01L springs to ensure end of spring does not extend past edge of handle bracket, approximately 1/8". Set springs over bushing of 84261-01 handle assembly.
- ii. Grease two 36275-01 bushings with ??. Insert into bushings of handle assembly.
- iii. Locate handle on basket lid. Insert AN3-12A bolt with NAS1149F0363P through bracket on lid and handle bushing on one end of handle.
- iv. On other end of handle, hook spring over catch rivet on handle assembly and use spring tool to twist spring to catch arm on bracket on lid while inserting AN3-12A bolt with NAS1149F0363P washer through lid bracket and handle bushing.
- v. At first end, remove bolt and repeat step iv.
- vi. Install NAS1149F0363P washer and MS21044N3 nut on both AN3-12A bolts.
- vii. Torque AN3 bolts to ??.

c. Check handle

- i. Operate handle to ensure handle does not bind and springs hold handle in.
- ii. Snap handle into brackets to ensure handle locks.

d. Record PO/WO of all parts used in steps above on attached material tracking list.

5. Install lid brace

AD06

- a. Locate 36280-01 lid brace on bushing in basket. Ensure brace is on forward end of basket as it will be installed on the helicopter.
- b. On lid end, insert AN970-3 washer into end of lid brace. Insert AN3-15A bolt with NAS1149F0363P washer through AN970-3 washer, lid prop, and lid bushing. Install NAS1149F0363P washer and MS21044N3 nut on bolt.
- c. On basket end, insert AN3-17A bolt with AN970-3 washer through lid prop and basket bushing. Install NAS1149F0363P washer and MS2144N3 nut on bolt.
- d. Ensure brace is seated on lip of bushings before tightening nuts.
- e. Torque AN3 bolts to ??
- f. Record PO/WO of all parts used in steps above on attached material tracking list.

CARGO BASKET ASSEMBLY - COMMON

Complete
(initial or SCA #)

AK

6. Final Inspection

Dual inspection by a different person than assembled the basket.

- a. Check for general condition and correct assembly:
 - i. Bolts are tight
 - ii. Rivets are installed correctly
 - iii. Handle operates correctly
 - iv. Lid brace operates correctly
- b. Check that PO/WO numbers have been recorded.

Draft

Work Order: 2015-16Material Tracking Sheet
Eurocopter AS350 / AS355
Long Basket Assembly

1 of 2

Date Opened: 18 Feb 2015

Ass'y Step	Qty	Detail Drawing	Part Number	Description	Material	PO/WO
			78410-01	Cargo Basket Assembly		
Step 1				<i>Lid Assembly</i>		
	. 1		78412-01	Basket Lid Assembly <i>5/5</i>		
Step 1.a.	. . 4		49205-14	Bumper	Argus Industries Bumper	11010
	. . A/R		--	Sealant	Commercial Silicone RTV sealant	
Step 1.b.	. . 1		78427-01	Placard	0.063 Sheet, 6061-T6 Aluminum	78401-54
	. . 4		CR3213-4-02	Cherry Rivet		
Step 1.c.	. 1		70405-01	Lid Step Modification		
(option)	. . 1		70405-04	Tread Plate	3003 Aluminum Tread Plate, 0.063"	14074
	. . A/R		CR3213-4-02	Cherry Rivet		14084
	. . A/R		--	Sealant	Commercial Silicone RTV sealant	
Step 2				<i>Basket Assembly</i>		
Step 2.a.	. 1		78411-01	Basket Body Assembly		
	. . 4		96710-01	Fitting	Alternate: Ancra 40088-14	NEW BATCH 15006
	. . 8		NAS1149F0663P	Washer		1384
Step 3				<i>Hinge Installation</i>		
	. 1		MS20001P4	Piano Hinge	90"	14091
	. 8		CR3523-5-02	Cherry Rivet		14080
	. A/R		CR3213-5-02	Cherry Rivet		14084
Step 4	. 1		84255-01	<i>Handle Installation</i>		
Step 4.a.	. . 2		84267-01	Bracket	Delrin, 3/4" Sheet	
	. . 4		AN3-11A	Bolt		14001
	. . 8		NAS1149F0363P	Washer		14048
	. . 4		MS21044N3	Nut		13064

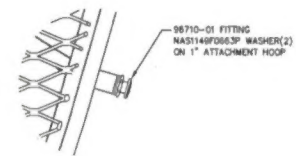
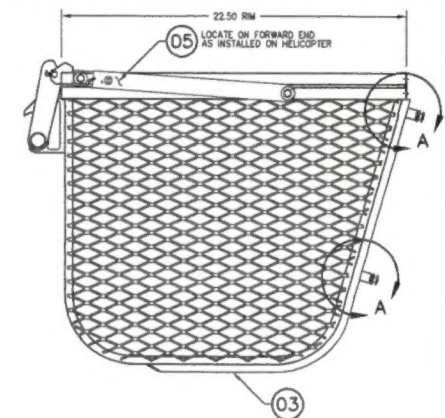
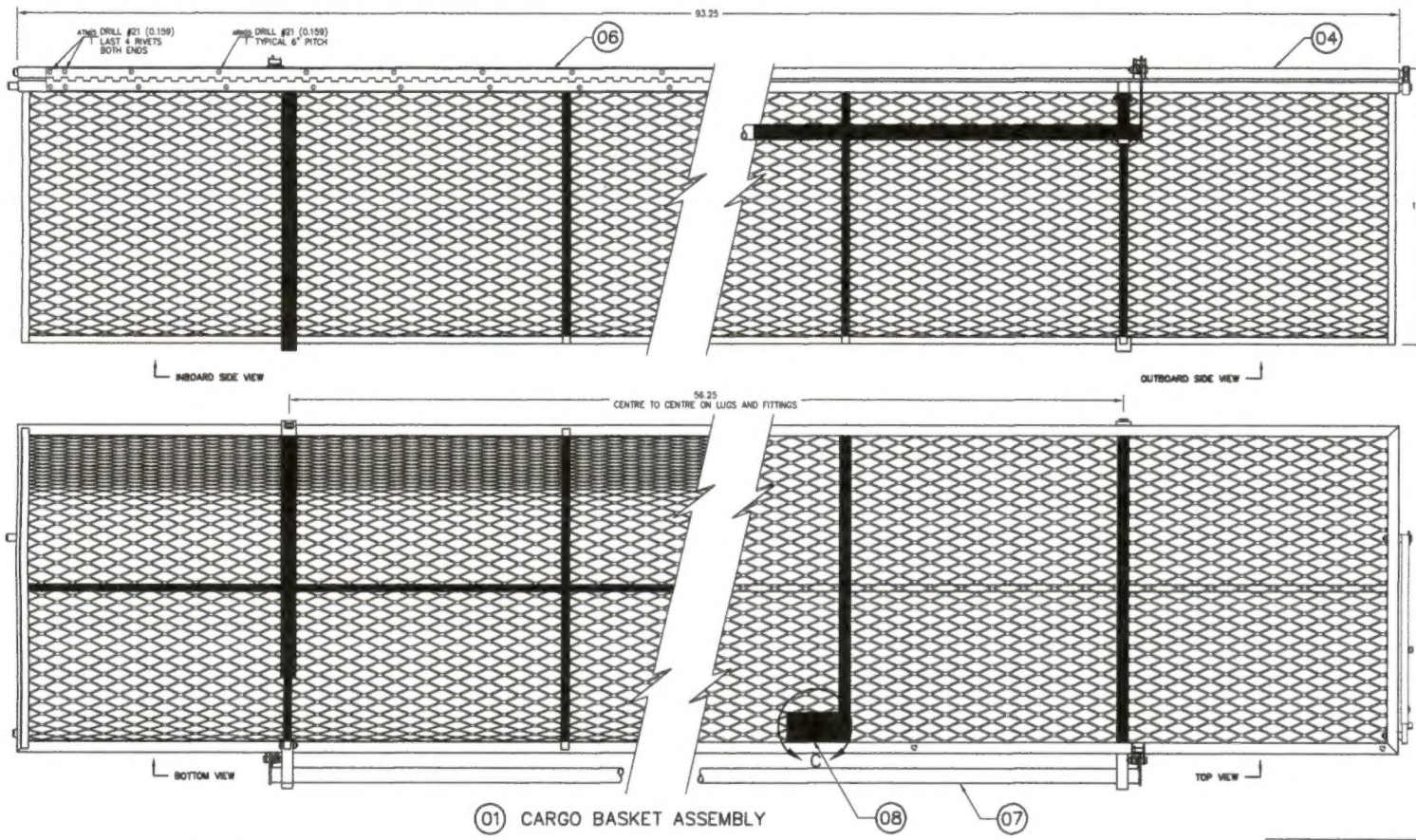
Work Order: 2015-16Date Opened: 18 FEB 2015Material Tracking Sheet
Eurocopter AS350 / AS355
Long Basket Assembly

2 of 2

Ass'y Step	Qty	Detail Drawing	Part Number	Description	Material	PO/WO
Step 4.b.	.. 1		84261-01	Handle Assembly		2014-37 (ENDS) 14130 TUBE (H)
	.. 2		36278-01	Spring (1 left, 1 right)	304 Stainless, 1/16" Dia Music Wire	
	.. 2		36275-01	Bushing	Brass, 5/16" Dia	36271-01
	.. 2		AN3-12A	Bolt		13084
	.. 4		NAS1149F0363P	Washer		14048
	.. 2		MS21044N3	Nut		13084
Step 5				Lid Brace Installation		
	. 1		36280-01	Brace Assembly		2
	. 1		AN3-15A	Bolt		14084
	. 1		AN3-17A	Bolt		14084
	. 2		AN970-3	Washer		13084
	. 3		NAS1149F0363P	Washer		13084
	. 2		MS21044N3	Nut		13084
Step 6				Inspection	None	

2015-16

REV	DESCRIPTION OF CHANGE	INITIALS	DATE
0	INITIAL ISSUE		
1	CHANGED HANDLE CONFIGURATION, REMOVED ALTERNATE BASKET	BJC	27/01/2010
2	UPDATE TITLE BLOCK, ADD ALTERNATE RIVETS, HARDWARE P/N'S UPDATED, HINGE LENGTH, CHANGE BRACE ASSEMBLY TO INSTALLATION	BJC	16/07/2014

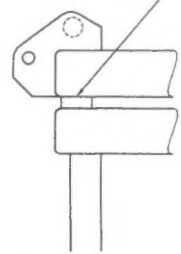


DETAIL A
SCALE 1 : 2
TYPICAL UPPER AND LOWER, FRONT AND REAR

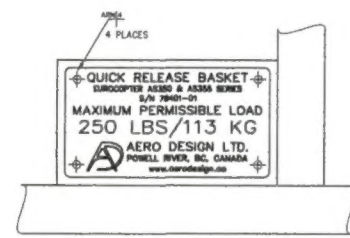
NOTE:
1. ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY. DIMENSIONS OF COMPONENTS AND COMPLETE ASSEMBLY ARE DETERMINED IN PREVIOUS SHEETS.

01 CARGO BASKET ASSEMBLY

FILL 1/4" HOLE WITH COMMERCIAL SILICONE SEALANT
INSERT BUMPER INTO HOLE
4 PLACES



BUMPER INSTALLATION
SCALE 1 : 1



DETAIL C
SCALE 1 : 1
LOOKING AT PLACARD BRACKET

A/R	ITEM	DESCRIPTION	MATERIAL	MATERIAL SPEC	STOCK SIZE
4	NAS1149F0563P	WASHER			
4	98710-01	FITTING			
8	CR3523-5-02	CHERRY RIVET	ALTERNATE: ANDRA 4008B-14		
A/R	CR3213-5-02	CHERRY RIVET	ALTERNATE: HUCCOMAX HR3213-5-02		
4	CR3213-4-02	CHERRY RIVET	ALTERNATE: HUCCOMAX HR3213-4-02		
4	49205-14	08 BUMPER	ARGUS INDUSTRIES		
1	78413-01	08 PLACARD			
1	84255-01	07 HANDLE BAR INSTALLATION			
A/R	MS20001P4	06 PIANO HINGE			90.0 LONG
1	84240-01	05 LID BRACE INSTALLATION			
1	78412-01	04 LID ASSEMBLY			
1	78411-01	03 BASKET BODY ASSEMBLY			
01	78410-01	01 CARGO BASKET ASSEMBLY			
QTY	PART NO.	ITEM	DESCRIPTION	MATERIAL	MATERIAL SPEC

BASIC CODE REF: NAS 523	DASH NO. FOR DIAMETER N=MFD. HEAD NEAR SIDE F=MFD. HEAD FAR SIDE	DASH NO. FOR LENGTH	APPROVALS DRAWN: R. RATHWELL CHECKED: E. BURGOIN	DATE 19 FEB 08
C=COUNTERSINK D=DIMPLE DXT=# OF SHEETS TO BE DIMPLED	BASIC CODES: BJ=MS20470AD DB=MS20426AD ARN=CR3213 ATM=CR3523	INSTALL NEW RIVET REMOVE/REPLACE RIVET EXISTING RIVET	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ON: DECIMALS ANGLES X.XXX ±0.010 ±1/2" X.XX ±0.03 X.X ±0.1	
AERO DESIGN LTD. 8088A MALASPINA ROAD POWELL RIVER, BC, CANADA, V8A 0G3 TEL: 250.465.5278 www.aerodesign.ca			EUROCOPTER AS350 & AS355 SERIES QUICK RELEASE SKI BASKET BASKET ASSEMBLY (LONG)	
SHEET 1 OF 1			SCALE 1 : 4 A1	QWS SIZE QWS NO. REV. 78410 2

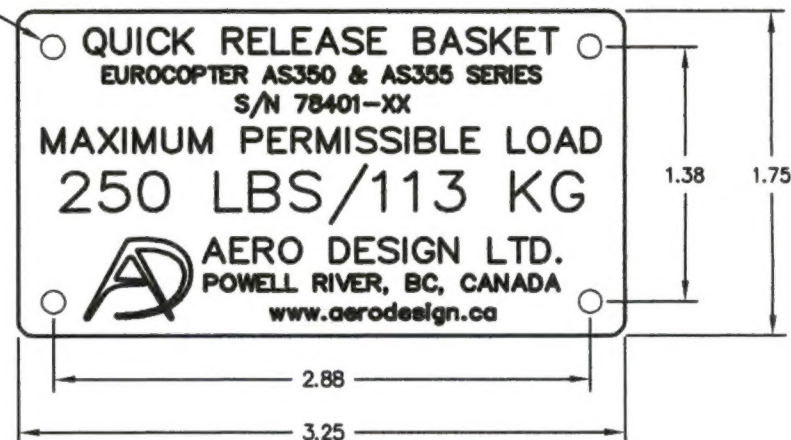
2015-16

REV.	DESCRIPTION OF CHANGE	INITIALS	DATE
0	INITIAL ISSUE		
1	INCREASE LOAD TO 250 LBS / 113 KG	BJC	27/01/2010
2	UPDATE TITLE BLOCK; UPDATE ADDRESS AND LOGO; MAT'L THICKNESS CHANGED	BJC	10/07/2014

NOTES

- ENGRAVE 0.007 DEEP AS FOLLOWS:
"QUICK RELEASE BASKET" - 0.125 HIGH
"EUROCOPTER AS350 & AS355 SERIES" - 0.080 HIGH
"S/N 78401-XX" - 0.080 HIGH
"MAXIMUM PERMISSIBLE LOAD" - 0.125 HIGH
"250 LBS/113 KG" - 0.200 HIGH
"AERO DESIGN LTD." - 0.125 HIGH
"POWELL RIVER, BC, CANADA" - 0.080 HIGH
"www.aerodesign.ca" - 0.080 HIGH


DRILL #30 (0.129)
4 PLACES



01 PLACARD

78427-01	01	PLACARD	6061-T6 ALUMINUM	QQ-A-250/11	0.050 SHEET
PART NO.	ITEM	DESCRIPTION	MATERIAL	MATERIAL SPEC	STOCK SIZE

LIST OF MATERIALS

NOTICE THIS DRAWING CONTAINS INFORMATION AND DATA WHICH IS PROPRIETARY TO AERO DESIGN LTD. THIS DRAWING, OR ANY PORTION THEREOF, MAY NOT BE REPRODUCED, COPIED, OR DUPLICATED IN ANY MANNER, NOR USED FOR MANUFACTURING WITHOUT THE WRITTEN CONSENT OF AERO DESIGN LTD. BY ACCEPTING THIS DRAWING FOR REFERENCE, THE RECIPIENT AGREES TO HOLD AERO DESIGN LTD. HARMLESS FROM THE USE, OR MISUSE, OF THIS DRAWING OR THE INFORMATION CONTAINED THEREIN.	APPROVALS	DATE		AERO DESIGN LTD. 9888A MALASPINA ROAD POWELL RIVER, BC, CANADA, V8A 0G3 TEL: 804.483.2376 www.aerodesign.ca			
	DRAWN: R. RATHWELL	18 FEB 08					
	CHECKED: E. BURGAIN						
	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ON: DECIMALS ANGLES X.XXX ±0.010 ±1/2" X.XX ±0.03 X.X ±0.1			EUROCOPTER AS350 & AS355 SERIES QUICK RELEASE CARGO BASKET PLACARD			
SCALE 1 : 1			DWG. SIZE	DWG. NO.	REV.		
SHEET 1 OF 1			A4	78427	2		

Aero Design

Parts Distribution Sheet

Description: Basket Assembly Kit

WO# 2015-16

[illegible]

[illegible]